

ABSTRACT

A stream switch fabric includes a series of stream queues coupled to a  
5 stream queue controller. A producer operates to output properly ordered  
portions of a data stream, hereinafter referred to as substreams, to one of the  
stream queues while the stream queue controller operates to control the  
outputting of a portion of the data within the stream queue to a consumer of the  
stream queue. The stream queue controller can initiate further actions within  
10 the stream queue such as copying a portion of the data within the stream queue  
to a content processing element for analysis; redirecting the data within the  
stream queue to another consumer of the data stream, such as another  
processing element or an interface with a packet switched network; modifying a  
portion of the data within the stream queue; and/or transferring a portion of the  
15 data within the stream queue to another stream queue within the stream switch  
fabric. The stream queue is controlled by control signals received from the  
consumer of the stream queue such as the content processing element.